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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,783	09/23/2003	Himabindu Tummala	10830.0101.NPUS00	3293

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EXAMINER

CORRIELUS, JEAN M

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,783

Applicant(s)

HIMABINDU ET AL.,

Examiner

Jean M. Corrielus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This office action is in response to the application filed on September 23, 2003, in which claims 1-32 are presented for examination.

Information Disclosure Statement

2. The information disclosure statement (IDS) filed on March 2, 2004 and June 8, 2004 complies with the provisions of M.P.E.P 609. It has been placed in the application file. The information referred to therein has been considered as to the merits.

Drawings

3. Applicants are required to furnish the formal drawings in response to this office action if the formal drawings have not been submitted. No new matter may be introduced in the required drawings. Failure to timely submit a drawing will result in ABANDONMENT of the application.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 20-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 20 and 26, the following limitation is vague and unclear: "A file system for creating and maintaining a read-write snapshot copy of a production file system, the file

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server being programmed for creating a read-only snapshot copy of the production file system, creating a read-write snapshot copy of the production file system based on the read-only snapshot copy of the production file system, and maintaining the read-write snapshot copy of the production file system by maintaining a set of save volume blocks of new data of the read-write snapshot copy of the production file system” [note: claim 20] and “A file server for providing access to a production file system and a read-write snapshot copy of the production file system” [note: claim 26]. It is difficult to determine distinct boundaries between precise claim limitations in the claim. There is not a distinction between the preamble of the claim and the body of the claim. As presently written the claim can be described as a run-on claim with no clear separation of claim elements and/or limitations. Note *Festo Corp. v. shoketsu Kogyo Kabushiki Co.*, 234F.3d. 558, 56 USPQ2d 1865 (fed.Cir.2000).

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, specifically, as directed to an abstract idea.

Claims 1-32 in view of **MPEP section 2106 IV.B.2. (b)** define non-statutory processes because they merely manipulate an abstract idea without a claimed limitation to a practical application. The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form

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the basis of statutory subject matter under 35 U.S.C. 101. Data structure not claimed as embodied in computer-readable media is descriptive material per SE and is not statutory because they are neither physical nor statutory processes. Structural and functional interrelationship with a general-purpose computer for permitting claimed functions to be realized are not provided in the claims. In contrast, a claimed system should define structural and functional interrelationships between data structures or functional parts and a computer system which permit the data functions to be realized, and is statutory. Thus, the claimed are rejected as being non-statutory. Additionally, the invention, as claimed, is directed to the manipulation of an abstract idea with no practical application in the technology arts.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". Rubber-Tip Pencil Co. V. Howard, 20 wall. 498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basis tolls of scientific and technological work Gottschalk V. Benson, 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical phenomena, and abstract ideas are not patentable subject matter Parker V. Flook, 197 USPQ 193, 201 (S Ct 1978). A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See In re Wamerdam, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1754, 1759 (Fed. Cir. 1994). See also Schrader, 22 F.3d at 295, 30 USPQ2d at 1459.

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing

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more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600,1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. For example, a claim directed to a word processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the information stored may have some "real world" value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application.

Claim 1 represents an abstract idea, which do not provide a practical application in the technological arts. There is no manipulation of data nor there any transformation of data from one state to another being performed in "A method of operating a file server for creating and maintaining a read-write snapshot copy of a production file system" in claim 1. Actually, no post computer process activity is found in the technological arts. The method of operating a file server for creating and maintaining a read-write snapshot copy of a production file system is not a physical transformation. Thus, no physical transformation is performed, no practical application

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is found in the claims. Such managing data as claimed can be done in a piece of paper, where one having ordinary skill in the art would produce a random number a data record and compare that random number with the previously random number in the sheet. Also, the claims do not appear to correspond to a specific machine or manufacture disclosed within the specification and thus encompass any product of the class configured in any manner to perform the underlying process, and are thus rejected as being directed. Claim 1 is not **tangibly embodied** in a manner so as to be executable as the only hardware is in an intended use statement. Therefore, claim 1 is directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Applicant is advised to amend the claims by specifying the claim being directed to a practical application and producing a tangible result being executed by a general-purpose computer in order to correct the above indicated deficiencies.

The dependent claims 2-15 are rejected for fully incorporating the errors of their respective base claims by dependency. Thus, claims 2-15 are merely abstract idea and are being processed without any links to a practical result in the technology arts and without computer manipulation. They are not **tangibly embodied** in a manner so as to be executable as the only hardware is in an intended use statement.

Claim 16 represents an abstract idea, which do not provide a practical application in the technological arts. There is no manipulation of data nor there any transformation of data from one state to another being performed in "A file system" in claim 16. Actually, no post computer process activity is found in the technological arts. The file system is not a physical transformation. Thus, no physical transformation is performed, no practical application is found in the claims. Such managing data as claimed can be done in a piece of paper, where one having ordinary skill in the art would produce a random number a data record and compare that random number with the previously random number in the sheet. Also, the claims do not appear to correspond to a specific machine or manufacture disclosed within the specification and thus encompass any product of the class configured in any manner to perform the underlying process, and are thus rejected as being directed. Claim 16 is not **tangibly embodied** in a manner so as to **be executable** as the only hardware is in an intended use statement. Therefore, claim 16 is directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Applicant is advised to amend the claims by specifying the claim being directed to a practical application and producing a tangible result **being executed** by a general-purpose computer in order to correct the above indicated deficiencies.

The dependent claims 17-19 are rejected for fully incorporating the errors of their respective base claims by dependency. Thus, claims 17-19 are merely abstract idea and are being processed without any links to a practical result in the technology arts and without computer manipulation. They are not **tangibly embodied** in a manner so **as to be executable** as

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the only hardware is in an intended use statement.

Claim 20 represents an abstract idea, which do not provide a practical application in the technological arts. There is no manipulation of data nor there any transformation of data from one state to another being performed in “A file system for creating and maintaining a read-write snapshot copy of a production file system, the file server being programmed for creating a read-only snapshot copy of the production file system, creating a read-write snapshot copy of the production file system based on the read-only snapshot copy of the production file system, and maintaining the read-write snapshot copy of the production file system by maintaining a set of save volume blocks of new data of the read-write snapshot copy of the production file system” in claim 20. Actually, no post computer process activity is found in the technological arts. The file system for creating and maintaining a read-write snapshot copy of a production file system, the file server being programmed for creating a read-only snapshot copy of the production file system, creating a read-write snapshot copy of the production file system based on the read-only snapshot copy of the production file system, and maintaining the read-write snapshot copy of the production file system by maintaining a set of save volume blocks of new data of the read-write snapshot copy of the production file system is not a physical transformation. Thus, no physical transformation is performed, no practical application is found in the claims. Such managing data as claimed can be done in a piece of paper, where one having ordinary skill in the art would produce a random number a data record and compare that random number with the previously random number in the sheet. Also, the claims do not appear to correspond to a specific machine or manufacture disclosed within the specification and thus encompass any product of the class

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configured in any manner to perform the underlying process, and are thus rejected as being directed. Claim 20 is not **tangibly embodied** in a manner so as to **be executable** as the only hardware is in an intended use statement. Therefore, claim 20 is directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Applicant is advised to amend the claims by specifying the claim being directed to a practical application and producing a tangible result **being executed** by a general-purpose computer in order to correct the above indicated deficiencies.

The dependent claims 21-25 are rejected for fully incorporating the errors of their respective base claims by dependency. Thus, claims 21-25 are merely abstract idea and are being processed without any links to a practical result in the technology arts and without computer manipulation. They are not **tangibly embodied** in a manner so **as to be executable** as the only hardware is in an intended use statement

Claim 26 represents an abstract idea, which do not provide a practical application in the technological arts. There is no manipulation of data nor there any transformation of data from one state to another being performed in "A file server for providing access to a production file system and a read-write snapshot copy of the production file system" in claim 26. Actually, no post computer process activity is found in the technological arts. The file server for providing access to a production file system and a read-write snapshot copy of the production file system is not a physical transformation. Thus, no physical transformation is performed, no practical application is found in the claims. Such managing data as claimed can be done in a piece of

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paper, where one having ordinary skill in the art would produce a random number a data record and compare that random number with the previously random number in the sheet. Also, the claims do not appear to correspond to a specific machine or manufacture disclosed within the specification and thus encompass any product of the class configured in any manner to perform the underlying process, and are thus rejected as being directed. Claim 26 is not **tangibly embodied** in a manner so as to be executable as the only hardware is in an intended use statement. Therefore, claim 26 is directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Applicant is advised to amend the claims by specifying the claim being directed to a practical application and producing a tangible result being executed by a general-purpose computer in order to correct the above indicated deficiencies.

The dependent claims 27-32 are rejected for fully incorporating the errors of their respective base claims by dependency. Thus, claims 27-32 are merely abstract idea and are being processed without any links to a practical result in the technology arts and without computer manipulation. They are not **tangibly embodied** in a manner so as to be executable as the only hardware is in an intended use statement.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 16-19 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-28 of copending Application No. 10/668,546. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: "a production file system"; "a series of read-only snapshot copies of

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the production file system” and “read-write snapshot copies of the production file system, each of the read-write snapshot copies of the production file system being based on a respective one of the read-only snapshot copies of the production file system”.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Armangau US Patent no. 6,434,681.

As to claim 16, Armangau discloses a snapshot copy of a production data set is maintaining while a host may continue write access to the production data set. In particular, Armangau discloses the claimed “means for storing and maintaining a series of read-only snapshot copies of the production file system” (col.2, lines 13-23, lines 36-50); “means for creating and maintaining read-write snapshot copies of the production file system, each of the read-write snapshot copies of the production file system being based on a respective one of the read-only snapshot copies of the production file system” (col.3, lines 5-22, lines 50; col.4, lines 15-45).

As to claim 17, Armangau discloses “means for refreshing a selected read-write snapshot copy of the production file system with a specified read-only snapshot copy of the production file

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system” (col.7, lines 35-47; col.8, lines 35-51; col.9, lines 50-67; col.10, lines 5-21; col.13, lines 25-47).

As to claim 18, Armangau discloses “means for refreshing a selected read-write snapshot copy of the production file system with a specified read-only snapshot copy the production file system by creating a new read-only snapshot copy of the production file system and refreshing the selected read-write snapshot copy of the production file system with the new read-only snapshot copy of the production file system” (col.7, lines 35-47; col.8, lines 35-51; col.9, lines 50-67; col.10, lines 5-21; col.13, lines 25-47).

As to claim 19, Armangau discloses “restoring the production file system from a specified read write snapshot copy of the production file system” (col.7, lines 35-47; col.8, lines 35-51; col.9, lines 50-67; col.10, lines 5-21; col.13, lines 25-47).

Allowable Subject Matter

12. Claims 1-15 and 20-32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph and 35 U.S.C. 101, set forth in this Office action.


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Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jean M. Corrielus
Primary Examiner
Art Unit 2162

July 11, 2005